

East Fork Little Tarkio Bridge
Spanning East Fork Little Tarkio River
Fairfax Vicinity
Atchison County
Missouri

HAER No. MO-54

HAER
MO,
3-FAIRF.V,
1-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
Rocky Mountain Regional Office
National Park Service
U.S. Department of the Interior
P.O. Box 25287
Denver, Colorado 80225

HISTORIC AMERICAN ENGINEERING RECORD

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East Fork Little Tarkio Bridge

HAER No. MO-54

Location: Spanning East Fork Little Tarkio Creek, 3 miles south of the junction of Highway 46 and State Route N, approximately 500 feet east of north, around 6 miles east, and 3 miles south of Fairfax, Atchison County, Missouri Jamesville vicinity, Stone County, Missouri

UTM: Zone 15 N4462400/E306600
Quad: Tarkio Southeast

Date of Construction: Main span construction is estimated to be 1889-1890.

Modifications: The bridge east approach span was constructed in 1912-1913.

Present Owner: Atchison County Court
Rock Port, Missouri

Present Use: Farm to market vehicular bridge, which will be replaced with a new construction meeting projected needs.

Significance: Significance lies in the pin connected through truss Pratt, which retains its integrity. It reflects the 1890s' transportation expansion program in Missouri.

Historians: Craig Sturdevant, M.A., Anthropology
Tom Gage, Ph.D, American History

I. HISTORY

A. Need for the Bridge

Increased population and need to more efficiently move agricultural goods across the tributaries of the Tarkio River, which were frequently impassable, necessitated the construction of several bridges in the late 1880s and 1890s in Atchison County, Missouri. An additional need for the bridges was for shorter and safer routes for school children.

B. Construction

On August 8, 1889, the Atchison County Court ordered the construction of a bridge at the East Fork Little Tarkio Bridge location. (1) No further entries were discovered, although local sources say the bridge was in place well before the turn of the century. (2) With no minor difference, the bridge is identical to the Noakes Bridge in Nodaway County, Missouri, which was constructed in 1891 by the St. Joseph Bridge and Iron Works. (3) Given the exact measurements between the two bridges, it is quite probable that the East Fork Little Tarkio Bridge is another example of this 1890s' Missouri bridge company's work. The Atchison County records contain no information concerning bids, construction, or final inspection for the bridge.

The floods of 1912 and 1913 washed out the east end of the bridge which was subsequently replaced with a 17-foot approach span. There may have been additional substructure modification following dredging and straightening of the river channel. (4)

Atchison County records pertaining to bridge and road construction are minimal and contain little data regarding the late 19th and early 20th century transportation developments often found in other Missouri county archives. A statewide bridge inventory being carried out by FraserDesign, and probably available in 1990, will allow placement of bridges, such as East Fork Little Tarkio Bridge, in both state and county contexts.

II. THE BRIDGE

The East Fork Little Tarkio Bridge is a well-constructed pin connected Pratt high through truss. The bridge contains a relatively large number of wrought iron members, given the late 1891 construction date and the generally-accepted reduction of wrought iron, following 1880. (5)

The seven-panel main span is 119' long and 18'6" wide, out to out, supporting a 16' wide roadway. The hip verticals are paired 1" round wrought iron eyebars. The diagonals are paired 3/4" by 2-1/4" wrought iron eyebars in the second and sixth panels and 7/8" square wrought iron eyebars in the third and fifth panels. The fourth panel is braced and counterbraced with paired 3/4" round eyebars. The top and bottom laterals are 1" square

wrought iron eyebars. The struts are abutted 5" angle iron. The portal bracing is an unembellished sway brace of abutted 2-1/2" angle iron.

The bottom chords in the first, second, sixth, and seventh panels are paired 3/4" by 2-1/4" eyebars. The bottom chords' third, fourth, and fifth panels are paired 3/4" by 4" eyebars. The floor beams are 15" I beams. There are seven stringers. The outer two are 7" channels. The remaining five are 7" I beams. The deck is oak planking.

III. ST. JOSEPH BRIDGE AND IRON WORKS

As noted above, it is highly possible that St. Joseph Bridge and Iron Works constructed the East Fork Little Tarkio Bridge, given its almost exact similarity to the documented St. Joseph Bridge and Iron Works' Noakes Bridge, located in Nodaway County, Missouri. (6) The company operated out of St. Joseph, Missouri, from at least 1891 until 1898 and constructed a large number of bridges in northwest Missouri. (7) The company president was J. H. Sparks. (8)

V. NOTES

1. Atchison County Court Proceedings. Rock Port, Missouri, Book 8, p. 344.
2. Personal communication: Interview, Henry Bolin, bridge area landowner, July 21, 1989.
3. The Noakes Bridge uses 7/8" square wrought iron hip verticals, while this one has 1" round hip verticals.
4. Personal communication: Interview, Henry Bolin, bridge area landowner, July 21, 1989.
5. Waddell, J. A. L., Bridge Engineering, p. 28.
6. HAER Documentation. HAER No. MO-55.
7. Darnell, Victor C., Directory of American Bridge Building Companies 1840 - 1900, p. 30, p. 78.
8. Hoye's City Directory of St. Joseph for 1895, p. 483.

VI. BIBLIOGRAPHY

Directories

Hoye's City Directory of St. Joseph for 1891. St. Joseph: Hoye City Directory Company, 1891.

Books

Darnell, Victor C. Directory of American Bridge Building Companies 1840 - 1900. Washington, D.C.: Society for Industrial Archeology Occasional Publications No. 4, 1984.

Waddell, J. A. L. Bridge Engineering, Volume 1, New York: John Wiley & Sons, Inc., 1916.